

WE CLAIM:

1. A display device comprising:
 - (a) a plurality of microcapsules each including a polymerized, optionally hardened, micelle shell encapsulating a single bichromal ball in a liquid droplet, the ball having two hemispheric surfaces, one surface differing from the other surface in both color and electrical characteristics, and wherein the color of the bichromal ball is discernable through the shell and the liquid droplet; and
 - (b) a substrate to receive the microcapsules.
2. The display device of claim 1, further comprising an adhesive to bind the microcapsules to the substrate.
3. The display device of claim 1, wherein the plurality of microcapsules each further includes another shell encapsulating the micelle shell, wherein the color of the bichromal ball is discernable through the another shell.
4. The display device of claim 1, wherein the microcapsules have a size such that no additional bichromal ball can fit within the microcapsules.
5. The display device of claim 1, wherein for the two hemispheric surfaces, one surface is white and the other surface is black.
6. The display device of claim 1, wherein the bichromal ball of each microcapsule comprises titanium dioxide as a white pigment.
7. The display device of claim 1, wherein the bichromal ball of each microcapsule comprises magnetite or carbon black as a black pigment.
8. The display device of claim 1, wherein the microcapsules have a diameter ranging from about 10 to about 300 micrometers.
9. The display device of claim 1, wherein the micelle shell has a thickness ranging from about 0.5 to about 5 micrometers.

10. The display device of claim 1, wherein the bichromal ball of each microcapsule has a diameter ranging from about 10 to about 100 micrometers.

11. The display device of claim 1, wherein the liquid droplet is an aqueous composition.

12. The display device of claim 1, wherein the liquid droplet is an organic fluid.